27: Sauer--147 T-2 (1789-93) 1802 Kamchadal
116, 132

"We passed a pleasant and agreeable winter in different excursions to Bolshoiretsk, &c. enjoying all the good things in Kamtshatka, and perfect health. The frost was generally 5^{o} to 8^{o}. The severest cold that we had did not exceed 18^{o}, and lasted only a few hours. Snow was very deep."

27: Sauer--214 T-2 (1789-93) 1802 Kamchadal
116, 132, 133

"We passed the winter [CMC: 1790-1791] in excursions of pleasure, and in dancing and card parties, chiefly at Bolshoiretsk, where the luxuries of life are more plentiful than in the harbour of St. Peter and St. Paul. The frost was sometimes very severe, and we had for a few hours 21° below the freezing point of Reaumur. Two or three earthquakes happened about the neighbourhood of Neizshni; but, except a slight shock on the 21st November at noon, none of them reached the harbour of St. Peter and St. Paul.

...

...

By the 1st of May the bay of Avatska was clear of ice, and not before, owing to the feverity of the winter: but the inner harbour of St. Peter and St. Paul remained frozen up."

27: Sauer--285-287 T-2 (1789-93) 1802 Kamchadal-1-2
116, 133, 137, 787

"On the 11th August [CMC: 1792] in the harbour of St. Peter and St. Paul, I observed a number of swallows flying about, apparently much [286] frightened. They were red breasted, a species never remembered to have been seen here; and the inhabitants immediately predicted some remarkable event; they were, however, only seen during the morning. The next morning, about five o'clock, we were alarmed by a violent shock of an earthquake, preceded by a rumbling noise, little short of thunder. The motion of the earth was undulatory for nearly the space of a minute. I was dressing myself, and was thrown down, which induced me to get out of the house as quickly as possible. The water in the bay was agitated like a boiling cauldron. The shock came from the north-east, and appeared to me to continue upwards of two minutes; but other gentlemen were of opinion that it did not last more than one. A sailor, one of the watchmen on board the ship, was thrown out of his hammock. At Paratounca it was more violent; the earth opened in many places, and water and sand were thrown up to a considerable height; all the buildings in the village were more or less damaged; one balagan was thrown down; some of the ovens (the only brick-work about the buildings) were also shaken in; and all the paintings, &c. in the church, except Captain Clerke's escutcheon, were thrown from their fastenings.

At Neizishni Kamtshatka the inhabitants were extremely terrified; nor could they explain whether the noise or the shock preceded. The situation of the town is on a neck of land formed by the discharge of the Raduga, a considerable river, into the Kamtshatka;

the bed of the former was dry, and the inhabitants ran across it toward the mountains. They, as well as the cattle, were thrown down; and the continuance of the trembling was, according to their account, near an hour; the earth opened in many places, and sunk considerably in some. The volcano Klut-[287]shefskoi emitted a vast column of black smoke; a noise like thunder seemed to issue from the bowels of the earth; the bells of the two churches rang violently; and the howling of the dogs, and screams of the people, surpassed all description, for the latter expected every moment to see the complete destruction of the town. But when the shock was over, the lost water of the river resumed its former channel, and the inhabitants returned to their dwellings. Not a single brick chimney or oven was left standing. The altar of one of the churches was separated from it about a foot, inclining a contrary way; and the greater part of the balagans were thrown down.

It is remarkable, that the inhabitants of the village at the foot of the burning mountain only heard the noise, and did not feel the shock; nor did it cross the mountains to the western shores of the peninsula."

27: Sauer--289-290 T-2 (1789-93) 1802 Kamchadal
116, 133, 137

"I shall commence my description at the southern extremity [CMC: of the Kamchatka Peninsula], which the Russians call the Lopatka, latitude 51°, longitude 156° 40', east from Greenwich; a low point of land, widening and rising gradually into mountains, barren and rocky, only producing here and there the creeping cedar and willow, to the extent of 40 miles. Birch trees then appear in the inconsiderable vallies, which are replete with lakes and runs of water rushing into the sea both east and west. A cluster of mountains occupy the whole space from the Lopatka to latitude 53° 5', where, in the neighbourhood of the village Malka, they divide into two branches, one trending north north-west; the other, which may be called the principal chain, leads north north-east. The place where the mountains separate is the highest land on the peninsula, and forms a barren stony desert of 65 miles in length, in a direction north and south, and from 3 to 15 in width, producing in detached spots brush-wood, willows, and a very few scattered and stunted birch-trees. It is replete with springs and [290] brooks; some of which uniting, and flowing south and south-west, form the Bistrea; while others, at only a few fathoms distance, take an opposite course, and are the sources of the river Kamtshatka. At the end of this desert, the mountains close within a mile or two, and a forest of birch-trees follows to the village Apoushinsk, where the river Kamtshatka is navigable for small boats to its discharge."

27: Sauer--290 T-2 (1789-93) 1802 Kamchadal
116, 133, 134, 135

"From this place [CMC: i.e., north of the village of Apoushinsk, from which point the Kamchatka River is navigable by small craft] the face of the country assumes the appearance of extreme fertility. The valley widens, and the space between the mountains east and west is at Virchni Kamtshatka 40 miles. The soil is deep and rich, composed of black earth, mixed with fine black ashes from the burning mountains, and fine iron sand, which adheres to a magnet, and forges well with bar-iron, but used alone is very brittle."

27: Sauer--290-291 T-2 (1789-93) 1802 Kamchadal
116, 132, 133, 137, 824

"The productions of nature [CMC: in central Kamchatka] are, a small kind of wild black cherry (tsheromka), in great abundance; the wood of which, being particularly hard, is used by the Kamtshadals for their guiding sticks to the sledges: the thickest trees that I have seen are nine or ten inches in circumference. Firs, common pine and larch trees of extraordinary size, with birch, poplar, asp, and mountain-ash, clothe the mountains to their summit. The underwoods are, currant, dog-rose, hawthorn, alder, and bushes producing berries.

The climate is very different from that of the southern and northern parts of the peninsula, the valley being completely sheltered from the sea-breezes that chill the air in other parts, and prove a great check to vegetation, which commences here in the month of March. The scenery is beautiful beyond description, [291] the river meandering through the midst of the valley, from 50 to 250 yards wide, and from eight to 15 feet deep, and being replete with trout and every species of salmon in the season. This valley is 180 miles in length, frequently opening prospects of the Tolbatshinsk, a lofty double-headed mountain, constantly emitting an immense column of black smoke; while the second volcano, Klutshefskoi, towering to an incredible height, illuminates the clouds with its blaze, and affords a view awfully grand."

27: Sauer--291-292 T-2 (1789-93) 1802 Kamchadal
116, 177, 283, 563, 824 Russia
636.24

"Twelve versts below Virchnoi Kamtshatskoi Ostrog, is the village called Milkovoi, inhabited by farmers sent from Siberia at government expence, and possessing particular emoluments, for the purpose of growing corn and pulse to supply the country. They live uncontrolled, however, and find it easier to accumulate wealth, by acting as retailers for the merchants of Kamtshatka, and going themselves on the chase for sables, &c.: than in pursuing the more toilsome labour of cultivating the earth, which they neglect. Yet they keep gardens that produce very fine cabbages, potatoes, turnips, carrots, cucumbers, &c.; they also grow buck-wheat and rye for their own use, which yield abundantly; and I am inclined to think that, had they a proper inspector to superintend their business, they might with ease grow corn enough of every kind to supply not only the peninsula, but all the neighbouring country, Ochotsk, &c. Hemp grows remarkably well, which, however, I think there is no need of cultivating; for the nettle seems equally to answer every purpose. The Kamtshadals and Russians make sewing thread of it, and fabricate from it their fishing nets, which serve them, if used with caution, and properly dried, four or five years. The process of preparing it is nearly the same as that for hemp, but I think less troublesome; the nettle grows to the height of six and seven [292] feet; the fibres are much finer; and thread of equal thickness is stronger than that made of the imported hemp."

27: Sauer--292 T-2 (1789-93) 1802 Kamchadal
116, 133, 137, 361, 563

"At Tolbalshinsk [CMC: mountain] the mountains are broken and barren; they encroach upon the valley, and considerably lessen its width. Storms are frequent between this volcano and that of Klutshefskoi, but never reach the neighbourhood of Milhovoi, and the trees are considerably less in size; but the country continues fertile as far as 30 versts north of the village Klutshefskoi, which is also a colony of Siberian peasants for the same purpose as those at Milkovoi, and who act in the same manner [CMC: see category 563, this source, p. 291]. Their proceedings are in some respects justifiable; for the magistracy at Neizshni exact the same payment from them as from the residentiary merchants. The court of justice conflicts of a burgo-master, four members, or rathmen, a secretary, writers, and watchmen; receiving a salary for the time they are in service: and frequently an expensive deputation is sent to Tigil, Bolshoiretsk, Virchni, and such places as are reported to by these pedlars; so that it is a matter of doubt with me, whether the culture of the earth would render any harvest sufficient to answer the payment of their claims. In some years they amount to 18 or 20 rubles, and in others half as much more."

27: Sauer--292 [2] T-2 (1789-93) 1802 Kamchadal
116. 133, 134

"As you approach the north [CMC: of the Kamchatka Peninsula], the severity of the climate increases; the soil becomes sandy and stoney; and the vegetable productions are stunted and weak. The isthmus is situated in latitude 59° 20', and the distance from sea to sea is here about 40 miles. The widest part is from Kronotskoi Noss to the river Itsha, about 220 miles."

27: Sauer--293 T-2 (1789-93) 1802 Kamchadal
116, 161, 361

"I have already mentioned the situation of the town Neizshnoi Kamtshatka, which contains 80 isba's, or houses, with two churches; and its number of inhabitants, including children, 548 souls; latitude 56° 33'."

27: Sauer--293 [2] T-2 (1789-93) 1802 Kamchadal
116, 133, 136, 137

"The western coast of Kamtshatka is uniformly low and sandy, to the distance of about 25 to 30 miles inland, where the mountains commence. It produces only willow, alder, and mountain-ash, with some scattered patches of stunted birch-trees. The runs of water into the sea from the mountains, do not deserve the name of rivers (except the Bolshoia Reka), though they are all well stocked with fish from the sea in season, as trout and different species of salmon. They are generally at the distance of 15 to 20 miles from each other. The Itsha and Tigil are the most considerable; and neither of these have a course, with all the windings, of more than 100 miles.

The sea is shallow to a considerable distance; and the commanders of the transport vessels, who never lose sight of the exposed coast if they can help it, judge of their distance from land, in foggy weather, by the soundings, allowing a fathom for a mile; nor is there at the entrance into any of the rivers more than six feet at low water, with a considerable surf breaking on the sandy beach."

27: Sauer--293-294 T-2 (1789-93) 1802 Kamchadal
116, 161, 361 Russia
636.71

"The villages on this coast [CMC: i.e., the western coast of Kamchatka] are, Tigilsk, Itshinsk, and Bolshoiretsk (situated on the Tigil, Itsha, and Bolshoia rivers). Of these the former is the most considerable, containing 45 wooden houses, and one church. The Russian charts place it in latitude 57° 55'. This, which they call a fortified town, is surrounded by wooden palisades, and was built in 1752. The num-[294]ber of inhabitants are 338, including women and children. Itshinsk also contains a church, and about 10 houses, with 50 inhabitants. Bolshoiretsk contains 37 houses, and the total number of inhabitants are 235. Beside these, there are eight inconsiderable villages, containing each three or four houses, on the west coast."

27: Sauer--294-296 T-2 (1789-93) 1802 Kamchadal-1-3
116, 133

"The eastern coast is composed of mountains, rocks, rugged cliffs, and bold promontories, replete with inlets, and the appearance of such. Their entrance, however, is blocked up by reefs of rocks, the openings of which are only to be entered by the boats of the natives. Immense masses of stone are scattered out at sea to the distance of one two, and three miles; some of them being only discernible by the breakers, while others tower to a considerable height. The depth of the sea varies much, and suddenly, from 30 to 90 fathoms, and more. Earthquakes are frequent, and sometimes very violent.

The only harbour for ships on the whole peninsula is the Bay of Avatsha, which is probably the safest and most extensive in the world. I shall exert my utmost ability to describe this place; but fear that I shall scarcely be able to do it justice.

I will suppose myself approaching the coast from the south-east. When first seen, it appears strait and uniform, without bays or inlets; the land rising into moderate mountains, backed by such as are more lofty. Three of them, apparently united, [295] are very conspicuous to the north of the Bay, the farthest, or the most western is the highest and is conical; the next is a volcano, distinguishable by a column of smoke issuing from its summit, which is broken; the third presents several flat tops, lowering, and trending east, from which a narrow and lofty broken and irregular point of land extends about 15 leagues, terminating in a promontory called Sheeponskoi Noss. South of the bay are two remarkably lofty mountains; that nearest the entrance (Vilnitsheskoi Sopka) is formed like a sugar loaf; the other, Apalskoi, is far inland, not so lofty, and is flat on the top.

27: Sauer--294-296 T-2 (1789-93) 1802 Kamchadal-2
116, 133

On getting well in with the land, it is high, craggy, and broken, presenting the appearance of inlets. When about the latitude of 52° 45', and longitude 159° 15', the entrance into the Bay of Avatsha discovers itself, bearing north-west by west; south of which, at the distance of about four miles, is a small round island, composed of high pointed rocks, called Staritshkovoi Ostrov. The north cape is a bluff head, with a light-house on the top of it, resembling a centinel's box. From this cape eastward, to the distance of three miles, breakers are discernible over hidden rocks, which extend to the south about half a mile. Within the channel, are three detached needle rocks near the north side: on the opposite shore a single one remarkably bulky, the top of which is nearly flat. Soundings lessen from 40 to 12 fathom, over a stoney bottom; and 10 fathom in the channel, sand and mud.

The entrance is in latitude 52° 51', longitude 158° 48', whence Sheeponskoi Noss bears east north-east, distant about 17 leagues. It forms a channel in a direction north north-west four miles deep; the breadth is three miles in the widest, and two in the narrowest part; both shores rocky; the summits covered with birch trees, mountain-ash, and hawthorn. Having passed this [296] channel, you enter a most magnificent basin about 25 miles in circumference, completely land-locked, and every where (except the north-west extremity) high, and covered with trees. As we advance in the basin, commodious harbours open: to the east, Rakivinoi, about three miles deep, and three quarters of a

mile wide. The south cape is a lofty perpendicular mass of stone. Shoal water over rocks extend from the shore into the bay, about 50 fathoms from south to north, which makes the entrance difficult. The north cape is a high rocky shore, with some rocks that are detached; but these are visible, and not of any extent; the depth within is from 13 to 3 fathoms."

27: Sauer--296-297 T-2 (1789-93) 1802 Kamchadal-1-2
116, 133, 137, 361, 563 Russia
636.71

"The little harbour of St. Peter and St. Paul is to the north [CMC: in Avacha Bay]: its south bluff cape is extremely conspicuous; and the buildings upon the spit of land before it are clearly discernible. This harbour is in every respect convenient for giving ships all kinds of repair, as also for obtaining fire-wood and fresh water. If all its good qualities are considered, I think it may be pronounced the most convenient in the world. Six or eight ships of war might be conveniently moored in it head and stern: the only inconvenience (if it may be so called) lies in the amazing toughness of the ground; for if the anchor be heavy, and out any time, it will probably be found necessary to heave a strain on the ship to weigh it. The south of the harbour is bounded by a narrow neck of low land running out from the eastern shore in a western direction, covered with wooden houses and balagans; at the extremity of which is the entrance, 38 fathoms wide, and six and a half deep: ships may pass so close to this point of land, that a man may leap on shore. The west side is a projecting narrow mountain of moderate height trending to the south, terminating in a bluff head, upon which it a battery of three guns, and a flag. [297] From this extremity a shoal extends south about 100 fathoms. The north, which is the head of the harbour, is bounded by a valley, in which are the government magazines, barracks, and the dwelling houses of the commander and chief inhabitants. To the east, it is bounded by lofty mountains covered with wood to the very summit; namely birch, mountain-ash, hawthorn, dwarf-cedar, rose-bushes, &c. On this side

are several springs of very pellucid water rushing down the mountains into the harbour, and these are very convenient watering places.

The bay is bounded to the north-west by the extensive plains of Avatsha, where two rivers discharge themselves into it; namely, the Avatsha and Paratounca. At the estuary of the former, the Kamtshadals, who formerly resided in the harbour, have their present habitations; while the troops of the garrison possess their late dwellings."

27: Sauer--297 T-2 (1789-93) 1802 Kamchadal
116, 132, 133

"The harbour of Tareinsk opens to the west: the entrance is about one mile in length, when it suddenly turns to the south-east, extending twelve miles in length, and three in width: the depth is from six to eight fathoms, mud and sand. A narrow neck of high land at the bottom, like an artificial partition, separates it from the sea. This harbour, although extremely convenient in its construction, is not so in its situation; as an easterly wind is absolutely necessary to bring outward bound vessels into the bay of Avatsha where it is quite contrary; besides, it is exposed to the north and north-west winds, which blow over the plains of Avatsha right into it, and keep it blocked up by ice till late in the season."

27: Sauer--298 T-2 (1789-93) 1802 Kamchadal
116, 133, 136, 137, 161

"Near the mouth of this harbour [CMC: of Tareinsk in Avacha Bay], on its north-west borders, is a valley forming a plain of about one mile and a half square, well wooded with good sized birch trees: a situation which Major Behm thought the most eligible of any hereabouts for a town. North and south are lofty mountains of easy ascent, covered with trees to their summit. The valley is bounded to the west by a fresh water lake of about 15 miles in circumference, well stocked with fish all the year through; while its borders abound in different kinds of berries, sarana, tsheromtsha (a kind of wild garlick), and a variety of pot herbs. This lake is the chief source of the river generally known by the name of the Paratounca, of which I shall shortly give an account, as also of the other rivers. The remains of numerous villages in the vicinity of this lake strongly indicate the former popolousness of these parts; but they are at present overrun with bears, wolves, and hares."

27: Sauer--298 [2] T-2 (1789-93) 1802 Kamchadal
116, 136, 226

"The fish of the bay of Avatsha are, cod all the year through; thornbacks, flounders, and halibuts, as soon as the ice begins to break; whitings are caught all the winter by the boys and girls, who make a hole in the ice, lie flat upon it, and look into the water, holding in it a horse-hair noose on the end of a stick, which they get round the fish, and by these means haul them up very fast. Herrings and smelts are the first passage fish that appear (the former in immense shoals towards the latter end of April), and they remain till the beginning of June: their numbers, indeed, are incredible."

27: Sauer--299-300 T-2 (1789-93) 1802 RY3 Kamchadal-1-2
116, 136

"On the 7th June, in the inner harbour of St. Peter and St. Paul, I observed, at the flood tide, a considerable number of herrings swimming round in circles of about a fathom in diameter. Seeing them continue in this particular manner, I approached very near them, and remarked, in each of the circles, one fish very close to the ground, upon the weeds, and apparently without motion. I could not account for this peculiarity in their swimming, but thought that the weeds about the herring in the middle became of a very lively yellow colour. When the tide ebbed, and left these places dry, all the weeds, stones, sticks, &c. were covered with spawn about half an inch thick, which the dogs, gulls, crows, and magpies, were devouring with great avidity. These shoals of herrings, which are pursued by seals, cod, &c. come in spring and in the autumn; there is, however, a considerable difference in their size; and I believe the spring glut are the largest fish. The natives and other inhabitants ensnare a great quantity in autumn for their dogs.

The oil extracted from herrings is very pellucid and sweet; it preserves birds' eggs all the year quite fresh and good, as does also the oil of seals, whales, &c.

Herrings no sooner disappear, than immense shoals of salmon push into the bay and up the rivers; the first is the smaller sort, called the gorbushka (or hunch-back), from a remarkable protu-[300]berance which distinguishes this species. They are in great perfection about four or five weeks; and are no sooner in a state of decay, than another and larger species follows. These are succeeded by other sorts, all of the salmon kind,

until the end of September. I could not distinguish some sorts till they were boiled, when the paleness or redness of the flesh indicated a difference. The names of the different species are siomga, tshavissha (both very large), gorbushka, kaiko, krasnaia (red), and belaia (white). They push up the rivers, and get into the lakes, where the two latter continue all the winter, but get extremely deformed, crooked-backed, thin, and covered with red blotches; the upper jaw extends beyond the under jaw, and bends over it; the mouth is full of very large teeth, and the flesh is flabby. Here are also great varieties of crabs, sea eggs, prawns, muscles, cockles, and the small pearl oyster."

27: Sauer--300-301 T-2 (1789-93) 1802 Kamchadal
116, 133, 136, 137

"The plains of Avatsha, which bound the bay to the north-west, extend 18 miles from east to west, and 35 miles from north to south, producing at their northern extremity only a few patches of birch, poplar, and alders; all the rest are marshy grounds, overgrown with rushes and coarse high grass, with some spots of oziers and alders; the resort of myriads of water fowl, swans, geese, an amazing variety of the duck kind, and I believe every species of snipe. The river Avatsha runs in several branches through this plain. Towards its northern extremity are an immense number of cold springs, that form several basins of water, with small runs, uniting in a rivulet, which has a course towards the south of two miles, and empties inself into the river generally known by the name of the Paratounca, but which is called by the natives Ilmitsh; and the original Paratounca is the run from the springs above mentioned, opposite to the discharge of which the village of that name is situated. These springs do not [301] freeze in winter, during which season they are frequented by swans, geese, and several species of duck, particularly the safka, or duck with a melodious note, which has induced me to stile it musical. Here they find an abundance of food, and the pulpy root of an aquatic plant which, in its appearance, exactly resembles the olive, but is like the chesnut in flavour: I used it as a vegetable, and thought it better than any production of the gardens; the natives call it the sarana of the geese."

27: Sauer--302 T-2 (1789-93) 1802 Kamchadal
116, 133, 224, 484

"The Ilmitsh, commonly called the Paratounca, has its rise from near the Viluitshiskoi Sopka (called in Cook's last voyage the Paratounca); and from a lake near the Tareinskoi harbour, it makes a circuit of 85 versts, and discharges itself into the bay of Avatsha, only three miles in a direct line from its source: it is navigable for boats all the way; but I was fourteen hours in traversing the whole of this river, from the lake, in a canoe. The villagers of Paratounca go on the chase of deer, argali, bears, &c. about the source of this river, by passing down the stream into Tareinski harbour, and hauling their canoes over the plain already mentioned into the lake. An immense number of rivulets from the mountains flow to the east into the ocean, but none of them are either remarkable, or have their banks inhabited."

27: Sauer--302 [2] T-2 (1789-93) 1802 Kamchadal
116, 133, 136, 777, 825

"Here are no lakes of any extent: the names of the principal ones are, Osernoi, about 40 miles from Cape Lopatka; Kronotskoi, 20 miles south-east of Tolbatshinski volcano; and another of less extent, situated about 40 miles north of Neizshni Kamtshatka, called Nerpitshi: the natives say that they are replete with fish; and tradition relates, that the fish of these lakes had two heads, or that they possessed legs; and, being sacred to some deity or demon, those who presumed to ensnare them were punished with misfortunes: some of the natives, however, seem to doubt the truth of this, while others still firmly believe it."

27: Sauer--303-304 T-2 (1789-93) 1802 Kamchadal-1-2
116, 133, 134, 137, 782, 821

"Hot springs are very numerous, and seem scattered all over Kamtshatka; but those in the following places are the most remarkable:

Opalski, or Osernoi, situated nearly midway between the Lopatka and Bolshoiretsk, about 15 miles south of the Kamtshadal village of Yavinsk, surrounded by mountains, and at no great distance from the volcano of Opalsk. They occupy a valley of considerable extent, and are scattered to the distance of six miles, some parts of which produce detached birch trees, the sweet plant, &c.; but in general the soil is barren, composed of different coloured marl, and large stones which appear to have been scattered by eruptions of some volcano. The largest hot spring is at the foot of one of the mountains; and we heard the noise that it made at the distance of near a mile before we came to it. It is about six fathom in circumference, boiling up to a considerable height; the middle appears like a cauldron; and a piece of beef placed in it was very well boiled in a short time: all around it bubbles up between large stones; it then divides into two streams, which descend over stones, and unite at the bottom with a small rivulet formed by the other springs to the north: they flow a little way to the south, then turn westward into the lake Osernoi. About the border of these springs, and the rivulet which they form, we observed petrified, or rather calcarised, foliage of the sweet plant, birch leaves, sticks, &c. of a beautiful whiteness; but so extremely delicate in their texture, that we could not preserve any, even in cotton; for they mouldered to dust. The Kamtshadals suppose this to be the habitation of some demon, and make a

trifling offering to appease his wrath; without which, they say, he sends very dangerous storms. Our naturalist and Mr. Varonin, who ascended to these springs in 1790, experienced [304] a whirlwind, which tore their tent, and scattered its contents about, many of which were never found again. Ashes were scattered upon the snow about four inches deep, resembling coarse gunpowder, probably from the volcano Alaid (a solitary mountain in the sea, situated about 20 miles south-west of the Lopatka), which burns violently at this time(February 1793). It has at various intervals emitted smoke ever since 1790. The oldest inhabitant does not remember its having done so before, although tradition informs them of its violent eruptions."

27: Sauer--304 T-2 (1789-93) 1802 Kamchadal
116, 133, 134

"Toward the source of the Bystria, near the village Malka, are hot springs, a little way up the ascent of one of the mountains, which boil out of the earth in two or three places about a foot wide. Similar springs are seen near the village Natsheke, but more extensive, and forming in their run several convenient bathing-places. These have a sulphureous smell; and the stones taken from the bottom of the openings, where the springs appear, are covered with a shining thin coat, which resembles silver at first, but gets dull and of a dark colour after it has been sometime exposed to the air: the surrounding earth, to the distance of 20 fathoms in every direction, is warm, replete with empty shells like those of snails, and a transparent glutinous substance; as also with spots of loam, whereon any thing heavy being thrown sinks immediately. South of these springs, about the distance of 30 versts, at the source of the river Natsheke, is a sandy level spot, with several hot springs, the water of which is said to be brackish."

27: Sauer--304-305 T-2 (1789-93) 1802 Kamchadal
116, 133, 757

"At the distance of 12 versts from the village of Paratounca, in a direction north-west, is the discharge of a deep rivulet of warm water, called Klutshevoia, navigable for canoes three versts up-[305]wards. It springs from several hot water lakes in an extensive plain; one of which lakes is about 100 fathoms long, and 7 fathoms wide; very convenient for bathing near the shore, but the middle very deep, and extremely hot. About 20 fathoms from this is another, about 5 fathoms by 7, but excessively hot: a body of boiling water issues through a square hole in a stone at the eastern extremity; and it has a run into a cold water spring, so narrow, that you may stand with one foot in each. Ulcers, old and fresh wounds, are reputed to heal from bathing in this water. I used it for tea, but the flavour was not very agreeable, being something like that of alum. The hot springs of Shumatshik are situated 90 versts north of the bay of Avatsha, and flow into Kronotskoi Bay. There are several others, but of no note."

27: Sauer--305-306 T-2 (1789-93) 1802 Kamchadal-1-2
116, 133

"The following are the principal volcanoes:

Opalsk: I have described this mountain as seen from the sea. Its situation is near the hot springs; but its emission of columns of smoke is of very recent date, and they are not constant; nor has it ever been observed to blaze. --Viluitsh, or Viluitshiskoi Sopka: this seems now completely extinguished:--Avatsha, 25 miles north of the bay, constantly sends forth a body of smoke from its summit; as does also Tylbatsh, and Klutshefskoi, or Kamtshatskoi Sopka, both situated near the river. Tylbatsh (frequently written Tolbalshinsk) is one of the mountains that constitute the eastern chain; but projects considerably towards the river. It is more lofty than the rest, and has a pointed top. A little way down it, a sharp ridge stretches away to the north; from this ridge, and the side of the mountain where it joins, the smoke issues. I have observed, in a clear night, a reflection over it, resembling the Aurora Borealis. Klutshefskoi volcano may be reckoned among [306] the highest peaks, I believe, in the world. It is situated 175 miles west of Bering's island, from which, however, it is distinctly seen in clear weather at the time of the sun's setting: at least, I am assured of this by several Kamtshadals who have been on the island. This volcano is frequently subject to eruptions: in 1789, on the 20th November, a great noise preceded an earthquake; flames burst forth, with discharges of small stones and ashes: the trembling of the earth and the noise continued, more or less, till the 23rd, when it abated considerably; but on the 15th February 1790, it again resumed its former violence until the 21st: all

27: Sauer--305-306 T-2 (1789-93) 1802 • Kamchadal-2
116, 133

this time earthquakes were felt two or three times in the course of every 24 hours.--
Shevelutsh is 80 versts north of Klutshefskoi: this burnt formerly; but now it seldom
happens that smoke issues from it: this volcano is the source of two rivulets, the
Iltshutsh and Bakus, both of which flow into the Kamtshatka."

27: Sauer--306-307 T-2 (1789-93) 1802 Kamchadal-1-2
116, 161, 563, 651 Russia
636.65

"The number of inhabitants may be stated as follows, men, women and children:

At the town (Neizshnoi) - -	548
Ostrog Tigil - -	338
Virchnoi - -	226
Bolshoiretsk - -	235
And at the harbour of St. Peter and St. Paul - -	85
Colonists - - -	255
Russians - - -	1687
Kamtshadals - - -	1053
Total - - -	2740

Of the natives 351 males only pay tribute, or, rather, are living on the list of those who are tributary, according to the revision [307] made during the government of Mr. Reinikin, who succeeded Major Behm. The revisor (in 1784), by some unaccountable mistake, has frequently noted the name of one and the same person as the inhabitant of two or three villages; and from each village the tribute is exacted for this man. They have made repeated remonstrances, but in vain: this imposition, however, is the least

of their sufferings. They are compelled to pass the greater part of their time in procuring necessaries for their visitors. The governor makes his annual circuit round the peninsula, and receives a present from every individual; the captain of the district goes his rounds twice; different deputations from the courts of justice, soldiers on furlough, couriers, &c. all travel at the expence of the poor native, who is compelled to keep an extraordinary number of dogs for their conveyance. Government horses are quartered at each village, and the inhabitants must provide a stock of hay for them. Thus the Kamtshadal scarcely finds time to collect a supply of food in the fishing season for his own family."

27: Sauer--307-308 T-2 (1789-93) 1802 Kamchadal
116, 164, 177, 622, 651 Russia
636.65

"In 1768 the small-pox carried off 5368 of the inhabitants; and since the departure of Major Behm, the court of the interior (Zemskoi Suc) has discovered, that the Kamtshadals are indebted to government the whole tribute for the unfortunate sufferers by that disorder, and lay claims at present for the debt. The natives produce receipts; but are told, that an ukase from Irkutsk claims the payment. They appointed a delegate to lay their grievances at the feet of their sovereign; he, however, only reached Irkutsk, when he was promised redress, and sent back again: he returned last year, and is the chief of Shapinski village, a very intelligent man, and, I thought, very likely to help me to [308] some information as to their former customs and religion, which are now quite abolished; nor is their language pure."

27: Sauer--308 T-2 (1789-93) 1802 Kamchadal
116, 101, 177, 186, 776, 782

"He [CMC: i.e., the chief of Shapinski village] told me, that the Kamtshadals called themselves Itolmatsh (he says they are the Aborigines of the place), and the descendants of Newsteach or Newchtshatsh, and that their God was Newsteachtshitsh. Kouta is his intelligent spirit, the messenger of vengeance to their tormenting demons, and of rewards to the spirits of benevolence: he travels about in an invisible carriage drawn by flying animals resembling mice, but smaller than the human mind can conceive, and swift as a flash of lightning. 'Our Sorcerers (said he) were observers of omens, and warned us of approaching dangers, to avert which sacrifices were made to the demons: we were then wealthy, contented, and free.' He continued his discource thus as nearly as I could translate: 'I think our former religion was a sort of dream, of which we 'now see the reality. The Empress is God on earth, and her officers are our tormen-'tors: we sacrifice all that we have to appease their wrath, or wants, but in vain. They 'have spread disorders among us, which have destroyed our fathers and mothers; and 'robbed us of our wealth and our happiness. They have left us no hopes of redress; for 'all the wealth that we could collect for years would not be sufficient to secure one 'advocate in our interest, who dares represent our distress to our sovereign.' "

27: Sauer--308-309 T-2 (1789-93) 1802 Kamchadal
116, 157, 273

"They are an honest and hospitable race of men, extremely fond of music and of brandy. One of them, who constantly accompanied me in my aquatic excursions, and expended every farthing of his money in brandy, I one day saw coming to my habitation; and, to tempt him, I hid myself in an adjoining [309] room, leaving a glass of brandy upon the table, and a bottle half full close to it, with some sea-biscuit. He came in, saw nobody, and called me, but obtained no answer. Upon which he advanced to the table, and smelt to the glass: 'It is brandy,' said he, 'but I will not drink; and the bottle 'half full; well, I won't taste you; but I'll go and seek master, and scold him for leaving 'you in this manner. I'll just smell again, and go.'--I stepped out of window into the garden, and went to meet him: when he accosted me in the following manner: 'I have 'been into your room and saw a glass full of brandy; perhaps you won't believe me, but 'indeed I did not taste it.'--'I dare say you did.'--'No, by G--, I did not: I knew you "would not believe me; but a Kamtshadal will never take anything without permission.' --'Well, I must believe you; will you come and drink it?'--'Yes, that I will; but I 'wanted to scold you for leaving it so.' "

27: Sauer--309-310 T-2 (1789-93) 1802 Kamchadal
116, 177, 273, 439, 651 Russia
636.65

"They have long since adopted the manners of the Russians, and profess the Greek religion. Of their former customs there only exist their lascivious dances, and their impure language, with part of the dress. They entertain the greatest veneration for the memory of Major Behm, under whose command they enjoyed the protection of a father. At that time Kamtshatka was governed merely by the major and his assistant, Captain Shmaleff, without any other court of justice. The revenue of this peninsula was then 40,000 rubles annually, arising from the tribute of the natives, the profits on brandy, and the duty on furs; which sum was remitted to the chancery of Ochotsk: a trading expedition in two or more open boats was yearly undertaken by the natives, accompanied by the priest of the peninsula, to the Kuril islands; from whence they obtained sea-otter skins of a superior [310] quality, several Japanese articles, and wrought silks. The merchants who visited the peninsula brought other necessaries, and hard money for the articles of the natives. Brandy not being considered as an article of trade, but a government concern, the sale was prohibited; and, the commander or his assistant inspecting the transactions of the merchants, prevented fraudulent proceedings on both sides."

27: Sauer--310 T-2 (1789-93) 1802 Kamchadal
116, 177, 241, 563 Russia
636.24

"About the latter end of the year 1779, or the beginning of 1780, Major Behm returned to St. Petersburg. Major Reinikin succeeded him in the command, and wished to introduce among the natives the culture of the earth, but could not succeed; he brought potatoe seeds with him; first grew them in his own garden; and from thence they were abundantly distributed all over the peninsula, with every species of garden vegetables, which are cultivated with great success by the Russian inhabitants."

27: Sauer--310-312 T-2 (1789-93) 1802 Kamchadal-1-3
116, 563, 635, 651 Russia
636.63

"In the year 1783 a mandate from her Imperial Majesty proclaimed Neizshni Kamtshatka a city; ordained it the seat of government of the country under the chancery of Ochotsk offered privileges to such merchants as chose to become burghers; and instituted courts of justice, establishments better calculated to govern 300,000 men than 1500, which is about the number of male inhabitants. The governor was denominated Gorodnitshik (mayor); and his establishment consists of a secretary and writers; a Kaznatshestva (exchequer) for the receipt of the revenue, and payment of officers; a Zemskoi Sud (court of the interior), of which the Ispravnik, or captain of the district, is president, and in this court one of the natives is a member to represent the whole body; with a magistracy to regulate mercantile concerns, as already mentioned. [311]

The salaries allowed by government to the different officers are as follow:

The Gorodnitshik	- -	600 rubles.
His Secretary	- -	300
The Kaznatshae	- -	400
Ispravnik	- -	400

other officers less in proportion; some of the writers having only 24 rubles per annum.

27: Sauer--310-312 T-2 (1789-93) 1802 Kamchadal-2
116, 563, 635, 651 Russia
636.63

Prices of Articles 1793	Kazan.	Kamtshatka.
Linen for shirts per arsheen*	18 cop.*	120 cop.

*A pood is 40 lb. Russ, or 36 lb. English. 100 copeaks make a ruble; a copeak may be reckoned little more than a farthing sterling. 9 arsheens make 7 yards.

Boots per pair	3 rub.	12 to 18 rub.
Thread stockings do.	125 cop.	4 to 5 rub.
Soap per lb.	6 cop.	60 to 100 cop.
Candles do.	8 cop.	80 to 100 cop.
Tea do.	2 rub.	12 rub.
Sugar	50 cop.	3 rub.
Leaf tobacco per lib.	5 cop.	3 rub.
Rye flour, per pood*	50	500 cop.
Wheat do.	60	800 cop.
Rice per lib.	10	100 cop.

From this statement of prices, the impossibility of an officer living upon his salary will plainly appear; he is therefore compelled to find out some method of increasing his income, at the expence of the poor natives.

One of the captains of the district, who came here with his wife and family, finding himself extremely distressed, appropriated [312] the tribute of one year to his own use, and wrote a letter to the Empress; stating, that the severity of the climate, the prices of every article of life, and the wants of his family, had compelled him to make use of the tribute, consisting of such a number of sables and fox skins for their backs and bellies, which he rather chose to do than rob the poor natives (the only alternative). He requested her pardon, and an appointment where he could live upon his salary; and the industry of his family (of no benefit in Kamtshatka) might help to repay the amount of the articles that he had appropriated to his own use. The Empress ordered the governor to give him such an appointment, and pardoned him on account of the good reasons that he assigned; but this pardon was not to be regarded as a precedent; for such mercy was not to be extended to any future person who should dare to act in the same manner.

The magistracy receives its income from the burghers and meshanin. The latter are privileged pedlers (and the colonists are of the number); the former are divided into three classes, according to the extent of the capital that they give in, upon which they pay one per cent."

27: Sauer--312 T-2 (1789-93) 1802 Kamchadal
116, 273

"French brandy is now regarded as an article of trade; and a spurious sort is carried about the villages of the natives, who are very fond of it, and pay for it at the rate of one ruble per glass."

27: Sauer--312-313 T-2 (1789-93) 1802 Kamchadal
116, 221, 222, 251

"The Kamtshadals and residentiary Russians employ themselves during the summer in catching fish; drying some, and salting others for a winter supply for themselves and their dogs: in the autumn, in making hay for their cattle, collecting berries, the [313] sweet plant, and kiprey: the former is purchased by government for the distillery of brandy, at three and four roubles the pood when prepared and dried. In the spring they collect birds' eggs about the marshes, and particularly among the rocks at the mouth of the bay of Avatsha: these they preserve all the year with oil."